

Application No: 10/697,537 Docket No.: Q178-US1

Page 2

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A battery ~~An electrode system~~, comprising:
one or more separator materials formed into a bag having at least two seams,
the seams positioned so as to define a perimeter of a pocket configured to receive an electrode within the bag,
the seams being arranged such that at least one gap is formed between seams adjacent to one another along the perimeter of the pocket, and
at least one of the seams including a spacer positioned between portions of the one or more separator materials joined by the at least one seam.
2. (currently amended) The battery system of claim 1, wherein the spacer has a thickness greater than 10 μm along the one or more sides of the spacer that define the pocket.
3. (currently amended) The battery system of claim 1, wherein the separator includes an adhesive.
4. (currently amended) The battery system of claim 3, wherein the adhesive includes one or more components selected from the group consisting of acrylic, rubber, cellulose and silicone.
5. (currently amended) The battery system of claim 1, wherein the seams define a pocket configured to surround an electrode within the pocket.
6. (currently amended) The battery system of claim 1, wherein at least one fold in the separator material serves as a seam.
7. (currently amended) The battery system of claim 1, wherein the bag has an envelope shape.

Application No: 10/697,537 Docket No.: Q178-US1

Page 3

8. (currently amended) The battery system of claim 1, wherein at least one seam the forms a gap includes a spacer.
9. (currently amended) The battery system of claim 1, wherein at least one of the separator materials includes one or more components selected from the group consisting of polypropylene and polyethylene.
10. (currently amended) The battery system of claim 1, further comprising:
an electrode positioned in the pocket and wherein the separator bag includes a lower edge extending between lateral edges, the bag also including one or more lateral seams positioned along a lateral edge of the separator bag and at least one lower seams positioned along the lower edge of the separator bag, the one or more lateral seams not being positioned above a distance equal to 50% of the electrode height from the lower seam, the electrode height being measure along the edge of the electrode adjacent to the lateral seam.
11. (currently amended) The battery system of claim 1, further comprising:
an electrode positioned in the pocket, the electrode having a tab extending from an edge of the separator bag, the tab including a tab opening extending through the tab.
12. (currently amended) The battery system of claim 1, further comprising:
an electrode positioned in the pocket, the spacer has a thickness greater than 20% of the electrode thickness.
13. (currently amended) The battery system of claim 1, further comprising:
an electrode positioned in the pocket, the spacer has a thickness in a range of 80% to 120% of the electrode thickness.
14. (currently amended) A battery ~~An electrode system~~, comprising:
an electrode; and

Application No: 10/697,537 Docket No.: Q178-US1

Page 4

one or more separator materials formed into a bag having at least two seams that immobilize one portion of the one or more separator materials relative to another portion of the one or more separator materials, the seams defining a perimeter of a pocket that surrounds the electrode.

15. (currently amended) The battery system of claim 14, wherein the seams define four sides of a pocket, each of the pocket sides being adjacent to an edge of the electrode.

16. (currently amended) The battery system of claim 14, wherein at least one of the seams includes a spacer positioned between portions of the separator material joined by the at least one seam.

17. (currently amended) The battery system of claim 14, wherein the spacer has a thickness greater than 10 μm along the one or more sides of the spacer that define the pocket.

18. (currently amended) The battery system of claim 14, wherein the separator includes an adhesive.

19. (currently amended) The battery system of claim 18, wherein the adhesive includes one or more components selected from the group consisting of acrylic, rubber, cellulose and silicone.

20. (currently amended) The battery system of claim 14, wherein one or more of the separator materials includes one or more components selected from the group consisting of polypropylene and polyethylene.

21. (currently amended) The battery system of claim 14, wherein the separator bag includes a lower edge extending between lateral edges, the bag also including one or more lateral seams positioned along a lateral edge of the separator bag and at least one lower seams positioned along the lower edge of the separator bag, the one or more lateral

Application No: 10/697,537 Docket No.: Q178-US1

Page 5

seams not being positioned above a distance from the lower seam, the distance being equal to 50% of the electrode height, the electrode height being measure along the edge of the electrode adjacent to the lateral seam.

22. (currently amended) The battery system of claim 14, wherein the electrode includes at least one tab extending from a side of the bag, the tab includes an opening extending through the tab.

23. (currently amended) A battery ~~An electrode system~~, comprising:

one or more separator materials formed into a bag having seams that immobilize one portion of the one or more separator materials relative to another portion of the one or more separator materials, the seams positioned so as to define a perimeter of a pocket configured to receive an electrode; and

an electrode positioned within the pocket, the electrode having a tab extending from the bag, a tab opening extending through the tab and being open to an edge of the tab.

24. (currently amended) The battery system of claim 23, wherein at least one of the seams includes a spacer positioned between portions of the separator material joined by the at least one seam.

25. (currently amended) The battery system of claim 23, wherein the spacer has a thickness greater than 10 μm along the one or more sides of the spacer that define the pocket.

26. (currently amended) The battery system of claim 23, wherein the separator includes an adhesive.

27. (currently amended) The battery system of claim 23, wherein the separator bag includes a lower edge extending between lateral edges, the bag also including one or more lateral seams positioned along a lateral edge of the separator bag and at least one

Application No: 10/697,537 Docket No.: Q178-US1

Page 6

lower seams positioned along the lower edge of the separator bag, the one or more lateral seams not being positioned above a distance equal to 50% of the electrode height from the lower seam, the electrode height being measure along the edge of the electrode adjacent to the lateral seam.

28-33. (canceled)

34. (currently amended) A method of forming ~~an electrode system~~ battery, comprising:
joining regions of one or more separator materials so as to form the seams of a separator bag,

the seams being positioned so as to define a perimeter of a pocket
configured to receive an electrode within the bag,

the seams being arranged such that at least one gap is formed between
seams adjacent to one another along the perimeter of the pocket, and

at least one of the seams formed so as to include a spacer positioned
between regions of the separator material joined by the at least one seam.

35. (currently amended) The method of claim 34, wherein the at least one seam is formed so as to have a thickness greater than 10 μm along the one or more sides of the spacer that define the pocket.

36. (currently amended) The method of claim 34, further comprising:

positioning an electrode in the pocket; and

forming at least one additional seam joining regions of the one or more separator materials after positioning the electrode in the pocket.

37. (currently amended) The method of claim 36, wherein the at least one additional seam acts with the other seams to define a pocket surrounding the electrode.

38. (currently amended) The method of claim 34, further comprising:

Application No: 10/697,537 Docket No.: Q178-US1

Page 7

positioning an electrode in the pocket, the electrode including a tab with a tab opening extending through the electrode; and

positioning the electrode on a post of an electrode receiving member such that the post extends through the tab opening.

39.-53. (canceled)